

### **Abstract of the Disclosure**

A filament coating apparatus comprising a frame for releasably securing a filament, and a carriage mounted on the frame to oscillate between a first position and a second position. There is a first filament holding fixture mounted on the carriage and a second filament holding fixture also mounted on the carriage in axial alignment with the first filament holding fixture to secure a measured filament portion, preferably of an optical fiber, including a bare portion thereof, located inside a first boundary and a second boundary, between the first filament holding fixture and the second filament holding fixture. At least one spray head is attached to the frame at the first position with at least one radiation source attached to the frame at the second position. The measured filament portion moves between the spray head and the radiation source, during oscillation of the carriage between the first position and the second position to place the bare portion to receive a curable coating composition from the spray head, for application from the first boundary to the second boundary, and thereafter to cure the curable coating by exposure to radiation from the radiation source.

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